## REMARKS

Applicants respectfully request further examination and reconsideration in view of the above amendments and the arguments set forth fully below. Claims 1, 2, 4-8, and 10-27 were pending. Within the Office Action, Claims 1, 2, 4-8, and 10-27 have been rejected. By the above amendment, Claims 1, 6, 13, 17, 26 and 27 have been amended and new Claims 28-32 have been added. Accordingly, Claims 1, 2, 4-8 and 10-32 are currently pending in this application.

**Rejections Under 35 U.S.C. § 102**

Within the previous Office Action, Claims 1, 2, 4-8, 10-20 and 23-25 were rejected under 35 U.S.C. §102 (e) as being anticipated by U.S. Patent No. 6,373,821 to Staats (hereinafter "Staats"). Staats teaches a method for setting a time stamp in the SYT field of packet headers for IEEE-1394 devices. Staats teaches stamping isochronous data packets with a presentation time stamp value determined according to a computed packet rate for the data. Staats teaches that a computed packet rate for the data can be a non-integer value. To achieve this non-integer value, Staats teaches using a data stream command language. The data stream command language is a set of commands that control data flow into or out of a data stream. Staats teaches that the data stream command language jump commands are used to allow a transmitter to send a frame with a different number of packets. Staats does not teach forming x number of first data blocks each containing n units of data, forming y number of second data blocks each containing m units of data and combining x number of first data blocks and y number of second data blocks into a data stream to achieve the predetermined rate.

Within the previous Office Action, in the response to arguments section, it is stated that Staats specifically teaches that the transmitter needs to send 266 packets and sometimes send 267 packets. It is then stated that this is synonymous to the claimed first and second data blocks with n and m units of data. The applicants respectfully disagree. Staats teaches that sometimes the transmitter will need to send 266 packets/frame and sometimes 267 packets/frame. [Staats, col. 6, lines 7-16] Staats does not teach forming x number of first data blocks each containing n units of data, forming y number of second data blocks each containing m units of data and combining x

number of first data blocks and y number of second data blocks into a data stream to achieve the predetermined rate. Staats also does not teach evenly distributing the x number of first data blocks among the y number of second data blocks. As described above, Staats only teaches that sometimes the transmitter will need to send 266 packets/frame and sometimes 267 packets/frame.

Within the previous Office Action, also in the response to arguments section, it is stated that the term "sometimes" is believed to be used to teach that 267 packets are placed in the stream at certain times in order to produce the NTSC compatible signal but not placed in the stream as constantly as 266 packets, thus, maintaining a proper stream of data. It is further stated within the Office Action that this is still synonymous to the claimed first and second data blocks with n and m units of data and to the claimed "evenly distributed." The applicants respectfully disagree. There is no teaching within Staats regarding evenly distributing the x number of first data blocks among the y number of second data blocks. Further, there is no hint, teaching or suggestion, within Staats to even support an obviousness rejection of evenly distributing the x number of first data blocks among the y number of second data blocks.

Within the previous Office Action, it is stated that uniformity in the data stream is inherent in the system of Staats. The applicants respectfully disagree. Staats teaches that the system determines when the driver should be notified to vary the default number of packets per frame, on a frame by frame basis. [Staats, col. 8, lines 21-67] Specifically, Staats teaches calculating a delta value for each frame, such that if the delta value is equal to or greater than one, a frame with 267 packets is transmitted and if the delta value is less than one, a frame with 266 packets is transmitted. [Staats, col. 8, lines 54-61] In the example, illustrated in Table 1 of Staats, three frames with 266 packets are followed by one frame of 267 packets, then one frame of 266 frames and then one frame of 267 packets. Accordingly, as shown in this example, within the patent itself Staats does not teach that the frames with 267 packets are **evenly distributed** with the frames with 266 packets within the data stream, as claimed in the present claims. Further, Staats teaches calculating an SYT value for a current frame and then calculating the delta value for the current frame, on a frame by frame basis. **Staats does not teach evenly distributing x number of first data blocks among y number of second data blocks thereby forming a repeating pattern of the first data blocks and the second data blocks within the data stream.**

Within the previous Office Action, it is further argued that over the time period of one hour, the sequence of data blocks will eventually repeat itself. The applicants respectfully disagree. *The applicants also question where support within Staats for such a conclusion can be found.* ***No where is this taught, hinted at or suggested in the actual teachings of Staats.*** As discussed above, Staats teaches calculating the delta value for each frame and making a determination based on the delta value as to whether a frame with 267 packets or a frame with 266 packets should be transmitted. Based on this scheme taught by Staats, one cannot **assume** that a pattern will repeat over time, no matter how long the time period. In fact, Staats goes further and even describes what happens when a cycle is missed. The repeating sequence argument, made within the Office Action, does not take such events into account and thus fails when the actual teachings of Staats are analyzed.

Staats teaches determining, on a frame by frame basis, what number of packets will be included within a frame. Staats does not teach **evenly distributing** x number of first data blocks among the y number of second data blocks. Within the previous Office Action, an opinion about what is inherent in the teachings of Staats is all that is used to support a rejection of the claims. However, this opinion is not based on or supported by the actual teachings of Staats, but instead is based on conjecture and examples of how a system of Staats is **assumed** to operate. This can not form a proper basis of a rejection of the claims of the present invention.

There is nothing in the teachings of Staats that supports an anticipation rejection under 35 U.S.C. § 102 of claims with such limitations. **Staats simply does not teach evenly distributing the x number of first data blocks among the y number of second data blocks.** Staats also does not teach that this even distribution forms a repeating pattern of the first data blocks and the second data blocks within the data stream. **As described above, Staats teaches determining the number of packets per frame on a frame by frame basis using a calculated delta value.** Also, as described above, the example shown in Table 1 of Staats does not show an even distribution or a repeating pattern. Further, there is no hint, teaching or suggestion to even warrant an obviousness determination. To do so would be to impermissibly use hindsight to make a rejection based on obviousness. The Court of Appeals for the Federal Circuit has stated that "it is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." In Re Fritch, 972 F.2d, 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). Based on the teachings of Staats, it would not have been obvious to evenly distribute the x number of first data blocks among the y number of second data blocks thereby forming a repeating pattern of the first

data blocks and the second data blocks within the data stream. To conclude that this is obvious based on the teachings of Staats, is to use hindsight based on the teachings of the present invention and to read much more into the teachings of this cited reference than its actual teachings. This is simply not permissible based on the directive from the Court of Appeals for the Federal Circuit. All that Staats teaches is that "[t]o achieve an overall $M_{av} = 266.5$, sometimes the transmitter will need to send 266 packets/frame and sometimes 267 packets/ frame." [Staats, col. 6, lines 12-14] There is no hint, teaching or suggestion within Staats to justify a conclusion that it is obvious to **evenly distribute** the 266 packets/frame among the 267 packets/frame.

In contrast to the teachings of Staats, the present invention is directed to a method of and apparatus for transmitting an isochronous video stream of data at a particular frame rate from a source device to a receiving device. The source device preferably determines a proper ratio of data packets versus video frames in response to the particular frame rate required and a cycle time for isochronous data. This proper ratio of data packets versus video frames rarely computes to an integer result. Accordingly, once the proper ratio of data packets versus video frames is determined, the source device preferably generates two groups of frames. A first group contains an integer value of packets nearest to and above the desired overall average ratio of data packets versus video frames. The source device also generates a second group of frames where each frame from this second group contains an integer value of packets nearest to and below the ratio of packets versus video frames. In order to achieve the desired frame rate, the source device generates a frame ratio containing a specific number of frames from the first group and the second group and forms the isochronous stream of video data. Accordingly, the frames from the first group and the frames from the second group are of a same type and have the same characteristics. The source device serially generates each of the frames in an order including a combination of the first group of frames and the second group of frames to achieve the overall desired average frame ratio. The source device then transmits the resulting isochronous video stream of data to the receiving device at the desired frame rate. As described above, Staats does not teach forming x number of first data blocks each containing n units of data, forming y number of second data blocks each containing m units of data and combining x number of first data blocks and y number of second data blocks into a data stream to achieve the predetermined rate. **Staats also does not teach evenly distributing the x number of first data blocks among the y number of second data blocks thereby forming a repeating pattern of the first data blocks and the second data blocks within the data stream.**

As described above, Staats teaches determining, on a frame by frame basis, what number of packets will be included within a frame. The teachings of Staats require this determination to be made for every frame. In contrast to the teachings of Staats, the present invention calculates a ratio of first frames and second frames in response to the particular frame rate. Staats does not teach calculating a ratio of first frames and second frames. As discussed above, Staats teaches determining a number of packets for each frame, on a frame by frame basis. In order to further the prosecution of the present application, this limitation has been added to each of the independent claims.

The independent Claim 1 is directed to a method of transmitting information from a source device at a predetermined rate. The method of Claim 1 comprises calculating a ratio of first data blocks to second data blocks to achieve the predetermined rate, forming x number of the first data blocks wherein each of the first data blocks contains n units of data, forming y number of the second data blocks wherein each of the second data blocks contains m units of data, and further wherein m is not equal to n and combining x number of first data blocks and y number of second data blocks into a data stream to achieve the predetermined rate. Claim 1 includes the further limitation that the first data blocks and the second data blocks are of a same type and have same characteristics. Claim 1 also includes the limitation that the x number of first data blocks are **evenly distributed** among the y number of second data blocks thereby forming a repeating pattern of the first data blocks and the second data blocks within the data stream. As described above, Staats does not teach forming x number of first data blocks each containing n units of data, forming y number of second data blocks each containing m units of data and combining x number of first data blocks and y number of second data blocks into a data stream to achieve the predetermined rate. As also described above, Staats does not teach that the x number of first data blocks are **evenly distributed** among the y number of second data blocks thereby forming a repeating pattern of the first data blocks and the second data blocks within the data stream. Further, Staats does not teach calculating a ratio of first data blocks to second data blocks to achieve the predetermined rate. As discussed above, Staats teaches determining a number of packets for each frame, on a frame by frame basis. For at least these reasons, the independent Claim 1 is allowable over the teachings of Staats.

Claims 2, 4 and 5 are all dependent upon the independent Claim 1. As discussed above, the independent Claim 1 is allowable over the teachings of Staats. Accordingly, Claims 2, 4 and 5 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 6 is directed to a method of transmitting information from a source device to a receiving device. The method of Claim 6 comprises calculating a ratio of first frames to second frames to achieve a predetermined frame rate, forming x number of the first frames wherein each of the first frames contains n units of data, forming y number of the second frames wherein each of the second frames contains m units of data and further wherein m is not equal to n, combining x number of the first frames and y number of the second frames into a stream of frames to achieve the predetermined frame rate by **evenly distributing** the x number of the first frames among the y number of the second frames thereby forming a repeating pattern of the first frames and the second frames within the stream of frames and transmitting the stream of frames from the source device to the receiving device. Claim 6 includes the further limitation that the first frames and the second frames are of a same type and have same characteristics. As described above, Staats does not teach forming x number of first frames wherein each of the first frames contains n units of data, forming y number of second frames wherein each of the second frames contains m units of data and combining x number of the first frames and y number of the second frames into a stream of frames to achieve a predetermined rate. As discussed above, Staats also does not teach **evenly distributing** the x number of first frames among the y number of second frames thereby forming a repeating pattern of the first frames and the second frames within the stream of frames. Further, Staats does not teach calculating a ratio of first frames to second frames to achieve a predetermined frame rate. As discussed above, Staats teaches determining a number of packets for each frame, on a frame by frame basis. For at least these reasons, the independent Claim 6 is allowable over the teachings of Staats.

Claims 7, 8 and 10-12 are all dependent upon the independent Claim 6. As discussed above, the independent Claim 6 is allowable over the teachings of Staats. Accordingly, Claims 7, 8 and 10-12 are each also allowable as being dependent upon an allowable base claim.

The independent Claim 13 is directed to a source device for transmitting information at a predetermined frame rate. The source device of Claim 13 comprises a controller for calculating a ratio of first frames to second frames to achieve the predetermined frame rate and generating a data stream containing a plurality of the first frames each including x packets of data and a plurality of the second frames each including y packets of data to achieve the predetermined frame rate, wherein the data stream is transmitted at the predetermined frame rate and y is not equal to x. Claim 13 includes the further limitation that the first frames and the second frames are of a same type and have same characteristics. It is also specified in Claim 13 that the x number of first data blocks are **evenly distributed** among the y number of second data blocks

thereby forming a repeating pattern of the first frames and the second frames within the data stream. As described above, Staats does not teach generating a data stream including a plurality of first frames each including x packets of data and a plurality of second frames each including y packets of data to achieve the predetermined frame rate. As also described above, Staats does not teach that the x number of first data blocks are **evenly distributed** among the y number of second data blocks thereby forming a repeating pattern of the first frames and the second frames within the data stream. Further, Staats does not teach calculating a ratio of first frames to second frames to achieve a predetermined frame rate. As discussed above, Staats teaches determining a number of packets for each frame, on a frame by frame basis. For at least these reasons, the independent Claim 13 is allowable over the teachings of Staats.

Claims 14-16 are all dependent upon the independent Claim 13. As discussed above, the independent Claim 13 is allowable over the teachings of Staats. Accordingly, Claims 14-16 are each also allowable as being dependent upon an allowable base claim.

The independent Claim 17 is directed to a system for transmitting information at a predetermined frame rate. The system of Claim 17 comprises a source device for calculating a ratio of first frames to second frames to achieve the predetermined frame rate and generating a data stream containing a plurality of first frames each including x packets of data and a plurality of second frames each including y packets of data to achieve the predetermined frame rate and y is not equal to x, wherein the first frames and the second frames are of a same type and have same characteristics and the x number of first data blocks are **evenly distributed** among the y number of second data blocks thereby forming a repeating pattern of the first frames and the second frames within the data stream, and a remote receiver coupled to the source device and configured to receive the data stream at the predetermined frame rate. As described above, Staats does not teach generating a data stream containing a plurality of first frames each including x packets of data and a plurality of second frames each including y packets of data to achieve the predetermined frame rate and y is not equal to x. As discussed above, Staats also does not teach that the x number of first data blocks are **evenly distributed** among the y number of second data blocks thereby forming a repeating pattern of the first frames and the second frames within the data stream. Further, Staats does not teach calculating a ratio of first frames to second frames to achieve a predetermined frame rate. As discussed above, Staats teaches determining a number of packets for each frame, on a frame by frame basis. For at least these reasons, the independent Claim 17 is allowable over the teachings of Staats.

Claims 18-20 and 23-25 are all dependent on the independent Claim 17. As discussed above, the independent Claim 17 is allowable over the teachings of Staats. Accordingly, Claims 18-20 and 23-25 are each also allowable as being dependent upon an allowable base claim.

**Rejections Under 35 U.S.C. § 103**

Within the previous Office Action, Claims 21, 22, 26 and 27 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Staats. Claims 21 and 22 are both dependent on the independent Claim 17. As discussed above, the independent Claim 17 is allowable over the teachings of Staats. Accordingly, Claims 21 and 22 are both also allowable as being dependent upon an allowable base claim.

The independent Claim 26 is directed to a system for transmitting information at a predetermined frame rate equal to 29.97 frames per second within an IEEE 1394 network of devices. The system of Claim 26 comprises a source device for calculating a ratio of first frames to second frames to achieve the predetermined frame rate and generating a data stream containing 9336 first frames, each including 267 packets of data, and 664 second frames, each including 266 packets of data, to achieve the predetermined frame rate of 29.97 frames per second, wherein the first frames and the second frames are of a same type and have same characteristics and the x number of first data blocks are **evenly distributed** among the y number of second data blocks thereby forming a repeating pattern of first frames and second frames within the data stream, and a remote receiver coupled to the source device by the IEEE 1394 network of devices, wherein the remote receiver receives the data stream from the source device at the predetermined frame rate. As recognized with the Office Action, Staats fails to disclose a data stream containing 9336 first frames and 664 second frames. It is stated in the Office Action that this is an obvious matter of design choice. The applicants respectfully disagree. Staats cites an NTSC compatible device with 266.973 data packets per frame, as an example. [Staats, col. 5, line 64 - col. 6, line 12] However, as discussed above, Staats only teaches that sometimes the transmitter will need to send 266 packets/frame and sometimes 267 packets/frame. As evidence that the limitation of a data stream containing 9336 first frames, each including 267 packets of data, and 664 second frames, each including 266 packets of data, is not an obvious design choice, even though Staats cites as an example an NTSC compatible device with 266.973 data packets per frame, Staats does not describe such a data stream with 9336 first frames and 664 second frames. As discussed

above, Staats only teaches that sometimes the transmitter will need to send 266 packets/frame and sometimes 267 packets/frame. Accordingly, Staats does not teach or make obvious a source device for generating a data stream containing 9336 first frames, each including 267 packets of data, and 664 second frames, each including 266 packets of data. As discussed above, Staats also does not teach or make obvious **evenly distributing** the x number of first frames among the y number of second frames thereby forming a repeating pattern of first frames and second frames within the data stream. Further, Staats does not teach calculating a ratio of first frames to second frames to achieve a predetermined frame rate. As discussed above, Staats teaches determining a number of packets for each frame, on a frame by frame basis. For at least these reasons, the independent Claim 26 is allowable over the teachings of Staats.

The independent Claim 27 is directed to a method of transmitting information from a source device to a receiving device over an IEEE 1394 network of devices. The method of Claim 27 comprises calculating a ratio of first frames to second frames, forming 9336 first frames wherein each of the first frames contains 267 packets of data, forming 664 second frames wherein each of the second frames contains 266 packets of data, combining the 9336 first frames and the 664 second frames into a stream of frames to achieve a predetermined frame rate of 29.97 frames per second by **evenly distributing** the second frames among the first frames thereby forming a repeating pattern of the first frames and the second frames within the stream of frames and transmitting the stream of frames from the source device to the receiving device over the IEEE 1394 network of devices, wherein the first frames and the second frames are of a same type and have same characteristics. As described above, Staats does not teach or make obvious forming 9336 first frames wherein each of the first frames contains 267 packets of data, forming 664 second frames wherein each of the second frames contains 266 packets of data and combining the 9336 first frames and the 664 second frames into a stream of frames to achieve a predetermined frame rate of 29.97 frames per second. As also described above, Staats does not teach **evenly distributing** the second frames among the first frames thereby forming a repeating pattern of the first frames and the second frames within the stream of frames. Further, Staats does not teach calculating a ratio of first frames to second frames to achieve a predetermined frame rate. As discussed above, Staats teaches determining a number of packets for each frame, on a frame by frame basis. For at least these reasons, the independent Claim 27 is allowable over the teachings of Staats.

For the reasons given above, Applicants respectfully submit that all of the claims are in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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